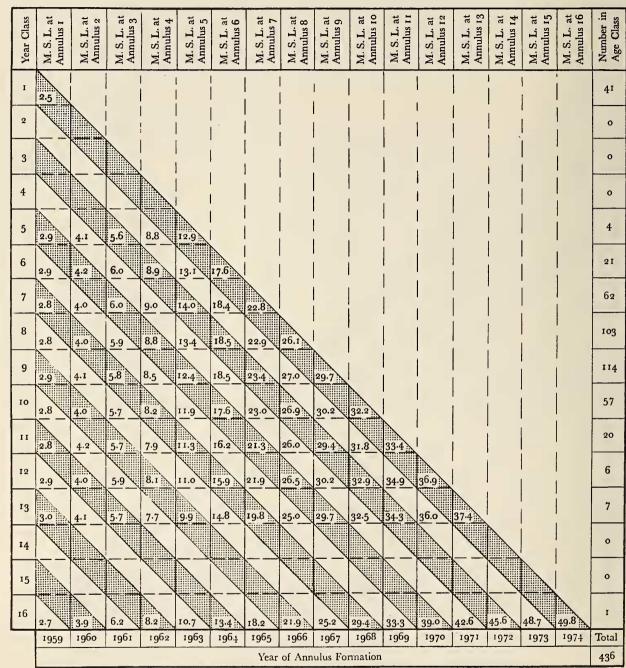
| Year Class | M. S. L. at<br>Annulus 1  | M. S. L. at<br>Annulus 2 | M. S. L. at<br>Annulus 3 | M. S. L. at<br>Annulus 4 | M. S. L. at<br>Annulus 5 | M. S. L. at<br>Annulus 6 | M. S. L. at<br>Annulus 7 | M. S. L. at<br>Annulus 8 | M. S. L. at<br>Annulus 9 | M. S. L. at<br>Annulus 10 | M. S. L. at<br>Annulus 11 | M. S. L. at<br>Annulus 12 | M. S. L. at<br>Annulus 13 | M. S. L. at<br>Annulus 14 | M. S. L. at<br>Annulus 15 | M. S. L. at<br>Annulus 16 | Number in<br>Age Class |
|------------|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|------------------------|
| 1          | 2.7                       |                          |                          |                          |                          |                          |                          |                          |                          |                           |                           |                           |                           |                           | l '                       |                           | 23                     |
| 2          |                           |                          |                          |                          |                          |                          |                          | <br>                     |                          |                           |                           |                           |                           |                           |                           |                           | 0                      |
| 3          | 3.0                       | 3.9                      | 6.4                      |                          |                          |                          |                          |                          |                          |                           |                           |                           |                           |                           |                           | <br>                      | 2                      |
| 4          | 3.2                       | 4.5                      | 6.1                      | 8.3                      |                          |                          |                          |                          |                          | ]<br>                     |                           | <br>                      |                           |                           | l<br>                     |                           | 1                      |
| 5          |                           |                          |                          |                          |                          |                          |                          |                          |                          |                           | <br>                      |                           |                           |                           |                           |                           | 0                      |
| 6          | 2.4                       | 3.5                      | 5.2                      | 7.0                      | 10.5                     | 14.8                     |                          |                          |                          |                           |                           |                           |                           |                           |                           |                           | 4                      |
| 7          | 2.9                       | 4.1                      | 5.6                      | 8.4                      | 12.1                     | 17.6                     | 21.4                     |                          |                          |                           |                           |                           |                           |                           |                           |                           | 6                      |
| 8          | 2.5                       | 3.9                      | 5.8                      | 8.0                      | 10.7                     | 14.5                     | 18.1                     | 21.0                     |                          |                           |                           |                           |                           |                           |                           |                           | 5                      |
| 9          | 2.6                       | 3.8                      | 5-4                      | 7-7                      | 11.0                     | 14.8                     | 18.2                     | 21.0                     | 23.1                     |                           |                           |                           |                           |                           |                           |                           | 20                     |
| 10         | 2.9                       | 4-3                      | 5.9                      | 8.2                      | 12.0                     | 16.7                     | 21.9                     | 26.5                     | 29.2                     | 31.4                      |                           |                           |                           |                           |                           |                           | 23                     |
| 11         | 2.8                       | 4.0                      | 5.7                      | 8.1                      | 11.5                     | 16.0                     | 20.7                     | 25.3                     | 28.7                     | 31.3                      | 33-3                      |                           |                           |                           |                           |                           | 25                     |
| 12         | 3.0                       | 4.1                      | 5.7                      | 8.2                      | 11.4                     | 15.4                     | 19.9                     | 24.6                     | 28.6                     | 31.4                      | 33.4                      | 35.1                      |                           |                           |                           |                           | 25                     |
| 13         | 2.9                       | 4.1                      | 5.6                      | 7.7                      | 10.5                     | 14.0                     | 18.5                     | 22.5                     | 26.6                     | 30.1                      | 32.8                      | 35.0                      | 36.8                      |                           |                           |                           | 13                     |
| 14         | 2.7                       | 4.0                      | 5.8                      | 7.8                      | 11.0                     | 14.9                     | 19.0                     | 23.3                     | 27.0                     | 30.6                      | 33-3                      | 36.1                      | 37.8                      | 39-3                      |                           |                           | 11                     |
| 15         | 29                        | 4.4                      | 6.0                      |                          |                          |                          | 18.1                     | 22.3                     | 26.2                     | 30.5                      | 33.2                      | 35.9                      | 37-3                      | 38.7                      | 40.8                      |                           | 4                      |
| 16         | 2.5                       | 3.3                      | 5.0                      | 5.9                      | 8.1                      | 11.2                     | 14.6                     | 16.8                     | 25.1                     | 31.4                      | 35.1                      | 36.1                      | 37.8                      | 38.8                      | 40.1                      | 41.8                      | I                      |
|            | 1959                      | 1960                     | 1961                     | 1962                     | 1963                     | 1964                     | 1965                     | 1966                     | 1967                     | 1968                      | 1969                      | 1970                      | 1971                      | 1972                      | 1973                      | 1974                      | Total                  |
|            | Year of Annulus Formation |                          |                          |                          |                          |                          |                          |                          |                          |                           | 163                       |                           |                           |                           |                           |                           |                        |

M. S. L. = Mean Shell Length

Figure 4

Growth Histories of Protothaca staminea for Beach I, Olsen Bay, Prince William Sound, Alaska



M. S. L. = Mean Shell Length

Figure 5

Growth Histories of *Protothaca staminea* for Beach II, Olsen Bay, Prince William Sound, Alaska

Table 1

Number of *Protothaca staminea* per m², Beach I, Olsen Bay, Alaska

| Year of<br>Settlement | Station 1<br>(1 m²) | Station 2<br>(1 m²) | Station 3<br>(1 m²) | Station 4<br>(1 m²) | Total |
|-----------------------|---------------------|---------------------|---------------------|---------------------|-------|
| 1973                  | 7                   | 2                   | 1                   | 0                   | 10    |
| 1972                  | 17                  | 1                   | 5                   | 0                   | 23    |
| 1971                  | 0                   | 0                   | 0                   | 0                   | 0     |
| 1970                  | 0                   | 0                   | 2                   | 0                   | 2     |
| 1969                  | 1                   | 0                   | 0                   | 0                   | 1     |
| 1968                  | 0                   | 0                   | 0                   | 0                   | 0     |
| 1967                  | 3                   | 1                   | 0                   | 0                   | 4     |
| 1966                  | 5                   | 0                   | 0                   | 0                   | 6     |
| 1965                  | 2                   | 2                   | 1                   | 0                   | 5     |
| 1964                  | 6                   | 14                  | 0                   | 0                   | 20    |
| 1963                  | 7                   | 16                  | 0                   | 0                   | 23    |
| 1962                  | 12                  | 11                  | 2                   | 0                   | 25    |
| 1961                  | 14                  | 4                   | 7                   | 0                   | 25    |
| 1960                  | 7                   | 1                   | 3                   | 0                   | 13    |
| 1959                  | 7                   | 1                   | 3                   | 0                   | 11    |
| 1958                  | 3                   | 0                   | 1                   | 0                   | 4     |
| 1957                  | 1                   | 0                   | 0                   | 0                   | 1     |

Total settling before the 1964 earthquake = 102.

Total settling after the 1964 earthquake = 71.

Total P. staminea for the four  $(1 \text{ m}^2)$  stations = 173.

Mean per  $m^2 = 43$ .

Table 2
Number of *Protothaca staminea* per m², Beach II, Olsen Bay, Alaska

| Year of<br>Settlement | Station 1<br>(1 m <sup>2</sup> ) | Station 2<br>(1 m <sup>2</sup> ) | Station 3<br>(1 m²) | Station 4<br>(1 m²) | Total |
|-----------------------|----------------------------------|----------------------------------|---------------------|---------------------|-------|
| 1973                  | 5                                | 7                                | 23                  | 54                  | 89    |
| 1972                  | 5                                | 5                                | 31                  | 0                   | 41    |
| 1971                  | 0                                | 0                                | 0                   | 0                   | 0     |
| 1970                  | 0                                | 0                                | 0                   | 0                   | 0     |
| 1969                  | 0                                | 0                                | 0                   | 0                   | 0     |
|                       | 1                                | 0                                | 1                   | 2                   | 4     |
| 1968                  | 9                                | 6                                | 5                   | 7                   | 21    |
| 1967                  | 0                                | 15                               | 26                  | 13                  | 62    |
| 1966                  | 28                               | 29                               | 28                  | 18                  | 103   |
| 1965                  |                                  | 33                               | 24                  | 19                  | 114   |
| 1964                  | 38                               | 13                               | 13                  | 2                   | 57    |
| 1963                  | 29                               | 13                               | 9                   | 0                   | 20    |
| 1962                  | 15                               | 2                                | 1                   | 1                   | 6     |
| 1961                  | 4                                | 0                                | 0                   | 0                   | 7     |
| 1960                  | 7                                | 0                                | 0                   | 0                   | 0     |
| 1959                  | 0                                | 0                                | 0                   | 0                   | 0     |
| 1958                  | 0                                | 0                                | 0                   | 0                   | 1     |

Total settling before the 1964 earthquake = 91.

Total settling after the 1964 earthquake = 434.

Total *P. staminea* for the four  $(1 \text{ m}^2)$  stations = 525.

Mean per  $m^2 = 131$ .